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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,526	02/05/2004	N.R. Gandhi	5333	5398

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EXAMINER

CHAWLA, JYOTI

ART UNIT	PAPER NUMBER
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1794

NOTIFICATION DATE	DELIVERY MODE
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10/07/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPAdmin@reinhardtllaw.com

Office Action Summary	Application No. 10/772,526	Applicant(s) GANDHI ET AL.	
	Examiner JYOTI CHAWLA	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on July 16, 2009 has been entered. Claims 15-17 have been cancelled. Claims 1-14 remain pending and are examined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

A) Rejection of claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall (US 4678673) in view of Osaka et al (US 3937843) have been withdrawn based on applicants' amendments and arguments.

B) Claims 1-3, 5-6, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fridman et al (US 3944676).

Regarding claims 1, 2 and 11, Fridman teaches of a method for preparing a fermented soy composition comprising fermenting an aqueous soy composition, such as soy milk (See Column 3, lines 26 and 45-52, also see Column 2, lines 20-30) with lactic acid bacteria, including streptococcus thermophilus, lactobacillus casei (Column 3, lines 56-57), which are thermophilic bacteria. Fridman teaches fermentation of soymilk at a temperature of 37-40 °C, until said soy composition has a pH of 4.2 to 5.2 (Column 3, lines 56-63), which falls in applicants' recited range for temperature of "between about 40 °C and about 50 °C" (claim 11) and pH range of "about 4.0 to about 5.0" (claims 1 and 11).

Regarding the addition of fats or oils to the fermented soy composition, Fridman discloses that various products can be manufactured from fermented soy product, which Fridman calls "high protein improved curd" (see Column 4, lines 29-39). The fermented soy products taught by Fridman include spreads, where the fermented curd is homogenized and fats and starch may be added to make the spread (see Column 4, line 34-36 and also see Examples 1, 5-6), which specifically teaches incorporating an oil component with fermented soy composition, as claimed.

Regarding the process limitation of heating said fermented soy composition to a temperature sufficient to substantially deactivate about 50% to 100% of said thermophilic bacteria, Fridman discloses a process step of making a soybean spread

comprising fermented soybean curd and oil, filling spread into containers and heating to about 90 °C for 15 minutes, which falls in the range of temperature which is sufficient to substantially deactivate about 50% to 100% of said thermophilic bacteria, as claimed.

Fridman teaches fermented soy product as recited in claims 1, 2 and 11. Fridman discloses that the soy may be used to make various products, such as spreads, beverages and whipped toppings (See Fridman Column 4, lines 29-39), but does not specifically teach soy "sour cream". However, given that sour cream is a type of spread, and a well known product used as topping or spread or dip, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fridman so that the soy based imitation dairy product is soy sour cream. One of ordinary skill would have been motivated to modify Fridman at least for the purpose of using the process to make a well known fermented product like sour cream, that is widely used as a spread or dip with characteristic sourness for lactose intolerant consumers.

Regarding claim 3, Fridman teaches of steps of making soy milk by forming aqueous solution from soy flour and grits and other soy products, including soybean meal or soybean flour and adjusting the ph using food grade acid (See Column 1, lines 20-33, Column 2, lines 20-30 and Column 3, lines 16-24).

Regarding claims 5 and 6, Fridman teaches of heating fermented soy composition to about 90 °C for 15 minutes, which is sufficient to substantially discontinue fermentation (as recited in claim 5) and also sufficient to provide a substantially aseptic composition (as recited in claim 6).

Regarding claim 12, Fridman teaches of addition of fat, for example, sunflower oil (See column 6, lines 34-36), which is a vegetable oil, as instantly claimed.

Regarding claim 13, Fridman teaches of bacterial fermentation of soy, wherein lactic culture is selected from *Streptococcus thermophilus*, *Lactobacillus arabinosus*,

Lactobacillus casei and mixtures thereof (See, Abstract, Column 3, lines 55-68 and Column 6, Example 5), where combinations of bacterial culture comprises at least one *Lactobacillus* strain and at least one *Streptococcus* strain, as claimed.

C) Claims 4, 7-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fridman et al (US 3944676) in view of IDS reference to Marshall (US 4678673).

Regarding claim 4, Fridman teaches of addition of fats (see Column 4, line 34-36 and also see Examples 1, 5-6), which specifically teaches incorporating a fat or oil component, as claimed.

Regarding the limitation of treating soy composition at a pressure greater than about 2,000 psi (as recited in claims 4 and 7), Fridman discloses homogenization of fermented soy products before and after addition of fats (For example, see Column 6, lines 33-35 and 37-39, Example 6). Fridman is silent as to the pressure for homogenization. However, homogenizing fermented products to incorporate additional ingredients and making a smooth creamy product was well known in the art at the time of the invention. Also variations of homogenization pressure and time required for homogenizing a food product were well within the purview of one of ordinary skill in the art at the time of the invention. For example, Marshall teaches of fermented soy products which are homogenized at pressures of 2100 psi (Marshall Column 6, lines 40-45) in order to mix the ingredients, which falls in the recited range for pressure of higher than 2000 psi for claims 4 and 7. Thus homogenization of soy products under recited pressure range was known to one of ordinary skill in the art at the time of the invention. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fridman and pressure homogenize the fermented soy product, as taught by Marshall. One of ordinary skill would have been motivated to modify Fridman at least for the purpose of mixing all the individual ingredients evenly with fermented soy product in order to obtain a uniformly flavored product.

Regarding claims 8 -10, Fridman discloses of heating the fermented soy product above 120 °C in order to obtain a hard product, like hard cheese which can be sliced (Fridman , Column 4, lines 40-45), however, Fridman is silent about obtaining a dehydrated fermented soy product and reconstituting of dehydrated fermented soy product.

Regarding claims 8-9, Marshall teaches dehydration of said fermented soy composition (Column 2, line 56 and Column 5, lines 21-35) and spray drying as a method of drying fermented soy product (Column 5, lines 21-35) to make a fermented soy product that can be stored in its dry condition at room temperature for an extended period (Column 5, lines 21-35). Regarding claim 10, Marshall also teaches of addition of water to reconstitute dehydrated soy composition (Column 6, lines 31-45) as recited by the applicant. Thus, dried fermented soy products obtained by spray drying, as claimed, were known for longer storage life as compared to the non-dehydrated products, at the time of the invention. Further reconstituting dried products by addition of water was also known at the time of the invention. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fridman in view of Marshall and dehydrate fermented soy product by a suitable dehydrating method, such as, spray drying (Marshall Column 5, lines 30-35). One of ordinary skill would have been motivated to modify Fridman and reduce the moisture content of the fermented soy product at least for the purpose of extending the storage life of fermented soy product at room temperature as taught by Marshall (Column 5, lines 32-35). One would have also been motivated to produce a dehydrated product, to provide a versatile shelf stable product to the consumer, which can be reconstituted with water and serves as a readily available source of fermented soy suitable for consumption as such or for incorporation in a lot of foods, which call for sour cream, such as dips or spreads.

Regarding claim 14, Fridman teaches of fermenting soy with lactic acid bacteria to make fermented soy products (Fridman column 4, lines 29-39). Fridman also teaches of addition of edible or food grade acids, such as, citric acid (See Column 2 and Column 3,

lines 19-26) to adjust the pH of soy extract prior to fermentation. Fridman also discloses an example where addition of acidic ingredients, such as, concentrated tomato paste and monosodium glutamate is done after fermentation to make a desired fermented soy product (See Column 6, example 6). Fridman is silent about addition of a food grade acid per se to the fermented soy product, however, addition of food grade acid, such as acetic acid (vinegar), lactic acid etc., to adjust the pH of foods and to provide desired flavor, texture or other properties, such as, sourness was well known to one of ordinary skill in the art at the time of invention (Fridman). Marshall also teaches of addition of food grade acids, such as, citric and lactic acids, to fermented soy product (See Marshall Column 3, lines 15-23 and Column 6, lines 35-41). Thus, it would have been within the purview of one of ordinary skill in the art at the time of the invention to modify Fridman to adjust the pH of the fermented soy product by addition of a food grade acid to the fermented soy product based on sourness characteristic desired in the finished soy product. One of ordinary skill would have been motivated to modify Fridman in view of Marshall and adjust the pH of fermented soy product at least for the purpose of achieving the sourness or acidic flavor that is characteristic of sour cream product. Further, attention is invited to *In re Levin*, 84 USPQ 232 and the cases cited therein, which are considered in point in fact situation of the instant case. At page 234, the Court stated as follows:

This court has taken the position that new recipes or formulas for cooking food which involve the addition or elimination of common ingredients, or for treating them in ways which differ from the former practice, do not amount to invention, merely because it is not disclosed that, in the constantly developing art of preparing food, no one else ever did the particular thing upon which the applicant asserts his right to a patent. In all such cases, there is nothing patentable unless the applicant by a proper showing further establishes a coaction or cooperative relationship between the selected ingredients, which produces a new, unexpected and useful function. In *re Benjamin D. White*, 17 C.C.P.A. (Patents) 956, 39 F.2d 974, 5 USPQ 267; In *re Mason et al.*, 33 C.C.P.A. (Patents) 1144, 156 F.2d 189, 70 USPQ 221.

Response to Arguments

Applicant's arguments filed July 16, 2007 have been fully considered but are moot in view of new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTI CHAWLA whose telephone number is (571)272-8212. The examiner can normally be reached on 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JC/
Examiner
Art Unit 1794

/KEITH D. HENDRICKS/
Supervisory Patent Examiner, Art Unit 1794